

84  
Croup.

10. 84

#14

By Robert M. Carter

Admitted 28<sup>th</sup> Feb 1819

Owing to the many disadvantages under which the student of medicine labours who resides in the country; I have been prevented from offering you an experimental thesis. The little confidence which is reposed in the unskillful and inexperienced student precludes him from the opportunity of making experiments. I have therefore chosen for the subject of my inaugural dissertation, that well <sup>known</sup> disease called croup.

Being well aware of my incapacity to do justice to the subject, and perfectly sensible of the many inaccuracies it may contain, I must appeal to your kind indulgence. Perfection has been rarely attained by any one who has embarked in physical speculations. I expect to offer nothing new to the world, but merely the result of reading, reflection, and some little experience without the aid of the latter all our proceedings must be vague and uncertain, and like the stranger in a wilderness without a guide or compass to direct his course.

By Robert H. Carter

1817

### An essay on croup

This is a disease universally allowed by the medical world to be an inflammation of the mucous membrane of the trachea and larynx. It is <sup>almost</sup> peculiar to children from six months old to the age of puberty; and makes its attacks most frequently in the winter and spring. But not particularly confined to any season of the year. It sometimes prevails as an epidemic, and like all other epidemical disorders depends on some morbid matter floating in the atmosphere, the nature of which we are unacquainted with. Cold appears to be the most general, <sup>exciting</sup> cause of this disease, sudden transitions from heat to cold are apt to produce it especially where a predisposition exists. Diphtheria is an exciting cause, it has been said by many authors to be prevalent on the sea coast, but we find it frequently in inland situations and in marshy,

The first of these is the  
the second is the  
the third is the  
the fourth is the  
the fifth is the  
the sixth is the  
the seventh is the  
the eighth is the  
the ninth is the  
the tenth is the  
the eleventh is the  
the twelfth is the  
the thirteenth is the  
the fourteenth is the  
the fifteenth is the  
the sixteenth is the  
the seventeenth is the  
the eighteenth is the  
the nineteenth is the  
the twentieth is the  
the twenty-first is the  
the twenty-second is the  
the twenty-third is the  
the twenty-fourth is the  
the twenty-fifth is the  
the twenty-sixth is the  
the twenty-seventh is the  
the twenty-eighth is the  
the twenty-ninth is the  
the thirtieth is the  
the thirty-first is the  
the thirty-second is the  
the thirty-third is the  
the thirty-fourth is the  
the thirty-fifth is the  
the thirty-sixth is the  
the thirty-seventh is the  
the thirty-eighth is the  
the thirty-ninth is the  
the fortieth is the  
the forty-first is the  
the forty-second is the  
the forty-third is the  
the forty-fourth is the  
the forty-fifth is the  
the forty-sixth is the  
the forty-seventh is the  
the forty-eighth is the  
the forty-ninth is the  
the fiftieth is the  
the fifty-first is the  
the fifty-second is the  
the fifty-third is the  
the fifty-fourth is the  
the fifty-fifth is the  
the fifty-sixth is the  
the fifty-seventh is the  
the fifty-eighth is the  
the fifty-ninth is the  
the sixtieth is the  
the sixty-first is the  
the sixty-second is the  
the sixty-third is the  
the sixty-fourth is the  
the sixty-fifth is the  
the sixty-sixth is the  
the sixty-seventh is the  
the sixty-eighth is the  
the sixty-ninth is the  
the seventieth is the  
the seventy-first is the  
the seventy-second is the  
the seventy-third is the  
the seventy-fourth is the  
the seventy-fifth is the  
the seventy-sixth is the  
the seventy-seventh is the  
the seventy-eighth is the  
the seventy-ninth is the  
the eightieth is the  
the eighty-first is the  
the eighty-second is the  
the eighty-third is the  
the eighty-fourth is the  
the eighty-fifth is the  
the eighty-sixth is the  
the eighty-seventh is the  
the eighty-eighth is the  
the eighty-ninth is the  
the ninetieth is the  
the ninety-first is the  
the ninety-second is the  
the ninety-third is the  
the ninety-fourth is the  
the ninety-fifth is the  
the ninety-sixth is the  
the ninety-seventh is the  
the ninety-eighth is the  
the ninety-ninth is the  
the hundredth is the



champaign countries. Children who are of a sanguineous temperament appear to be the victims of this distressing malady. There are instances of a whole family of children being subject to this disease, owing I suppose to a similarity of constitution, croup is a disorder fraught with danger; we should therefore be bold in our practice avoiding timidity on one hand and rushing on the other. When it terminates favorably a resolution of the inflammation takes place. The coagulable lymph which is poured out is taken up by the absorbents, which appears to be the process which nature employs in the restoration of injured parts. This disease runs its course rapidly, the little sufferer is sometimes cut off in four and twenty hours, but it oftener continues to <sup>the</sup> fourth or fifth day. Sometimes it assumes a chronic form, of all the maladies to which human



nature is subject. I know of none more insid-  
ious in its attacks than the one hitherto men-  
tioned. Sometimes we see it make its appear-  
ance with all the symptoms of a mild catar-  
rh and at other the patient is seized with  
all of the most prominent characteristics, such  
as the stridulous or barking cough, together with  
great difficulty of breathing. Parents should  
never neglect slight colds among their chil-  
dren more especially in situations favorable  
to the production of croup. The laborious  
respiration which is so alarming may be  
accounted for either from the diameter of the  
trachea being lessened by the formation of the  
membrane or from spasm affecting the larynx  
and glottis. Children who have once had an  
attack of the disease in question are liable  
to be seized by it again owing to a pre-  
disposition in the constitution only requiring  
an exciting cause to excite it into action



which I before mentioned <sup>was</sup> a change in the  
temperature of the atmosphere. This I can attest  
from my own knowledge and as a farther  
confirmation of the fact, Doctor Rhyme who  
has written an admirable essay on the subject  
relates the case of a lady whose child he  
attended, being kept in continual anxiety  
and alarm at every transition in the  
weather from heat to cold, which never failed  
to excite a renewal of the complaint.  
We have one exception to the croup being  
confined to childhood, in the memorable  
instance of the illustrious Washington to whom  
we are indebted for the freedom and prosp-  
erity we now enjoy. Dissections have proved  
beyond the possibility of doubt a lymphatic or  
membranous substance lining the inside  
of the trachea, which has been caught up  
in considerable quantities this membrane  
though it may add to the distress and danger



of the patient is not the cause of the complaint  
but is merely the effect of inflammation.  
In forming our prognosis we should do it  
with caution and diffidence for how often  
do we find physicians mistaken in their  
opinions at the hazard of their reputations. ✓  
When the breathing is not so sonorous, and  
the fever moderate, a free expectoration  
with the cough, we may then hope for a  
recovery. The patient will sometimes get so  
much better as to induce the practitioner  
and friends to augur favorably, but alas!  
this is a short truce and only calculated  
to brighten the fond hopes of the parent  
but in a short <sup>time</sup> death closes the scene.

The ingenious and learned Doctor Chapman  
thinks whom there cannot be higher authority  
apart that the membrane is not always found,  
on the contrary it is very rarely found  
and farther says he has examined many





children who have died of the croup, but never yet met with it, he has seen a collection of impacted mucus but never any thing which resembled, in the least, a membranous organization; that the membrane of inflammation occasionally exists in the trachea he does not doubt as we have the authority of credible writers for it. I shall now proceed to give some of the most prominent symptoms of the disease, for several days previous to the attack the child is observed to be drowsy, inactive and peevish. but in a very short time it displays itself in full colours. the eyes are heavy, often filled with water, countenance flushed, the cough which is at first a little hoarse now becomes of a peculiar ringing sound like the barking of a dog or the crowing of a cock, vomiting sometimes attends the cough, breathing is very difficult, with



violent efforts to renew respirations, there is considerable heat and thirst, with a sense of straightness in the larynx, great rattling and a disposition to change the posture, with frequency of pulse, costiveness of the bowels, high coloured urine, the pulse is often so rapid that we can with difficulty number it beating from one hundred and fifty to one hundred and seventy in a minute. The symptoms which I have enumerated will not apply to every case for they are different in different individuals, there are two species of this disease, the inflammatory and spasmodic, the muscles of the glottis and larynx being more or less affected with spasm. Some little difference may be observed in the two the latter is more sudden in its attacks, attended with less fever, and not so much phlegm expectorated, Cough less croupy, When a fatal termination takes place it is by suffo-



ation either from the muscular contraction of the larynx & glottis, by preventing the air from passing to the lungs, or from the effusion of matter upon the bronchia and lungs, destroying at once the functions necessary to the continuance of life. In the treatment of this disease I shall make no difference in the two divisions for I believe the same remedies will answer for both it has been the custom with physicians from the earliest date to use the depleting plan very extensively, this though must be regulated by sound judgment and discretion. Bloodletting has been a favorite remedy and has no doubt saved the lives of thousands, when called to a patient of a full, robust, and plethoric habit in the incipient stage with all the urgent symptoms heretofore mentioned, I would immediately take from the arm as much blood as the age and constitution would admit of which should be repeated until the fever

the other part the material substance of  
the language is of pressing importance  
to the large it form the expression of  
which upon the structure and form of  
it even the function of the word  
is of the importance of the sentence  
which makes its difference in the sentence  
to be the same sentence will never be  
it is for the sentence and phrases  
the result of the whole plan and  
structure, the thought must be organized  
these fragments and sentences, something  
to be a part of a group and not a whole  
and the form of the sentence and the  
of a full sentence and the whole  
the meaning of the whole is the result  
of the fragments and sentences  
the result of the whole is the result of  
the fragments and sentences

and inflammatory symptoms are subdued. The use of the lancet has been objected to by some from an idea that children are not able to bear large evacuations, from this opinion they leave to depend for they recover under such circumstances much sooner than adults, and are more tenacious of life. By bleeding from the general system we diminish the increased action of the circulation and lessen the general quantity of fluids; of course the impetus of the blood is taken off from the local part. It is sometimes extremely difficult to bleed young children in the arm from the smallness of their veins, in that case it may be taken from the foot or from the saphena vein, put previously into warm water by that means the veins are enlarged you will frequently be opposed by the vulgar and illiterate in performing the operation of venesection for they consider it extremely dangerous. This you must overrule,





urging the necessity of the evacuations, venesection I consider as the line qua non; what shall I say of that class of medicines called emetics, that they are daily used with the most decided advantage no person can deny. Our attention is therefore directed to them as the next remedy in arresting the progress of this mortal enemy to our rising generations. The tartarised antimony or emetic tartar is the one from which the greatest benefit may be derived; this should be given in large doses to have the desired effect; the sensibilities of the system appear to be locked up, and a want of susceptibility to impressions. *Spessacuantha* in mild cases might answer every purpose but less powerful in its operation than the former. then let us never resort to feeble medicines when we have those that can be wielded with more advantage. small doses of the anto-



mony should be exhibited to keep up  
a constant nausea by that means we  
depress the power of the system and contri-  
bute greatly to the cure. To facilitate the  
action of emetics the warm bath should by  
no means be overlooked; this by determining  
to the surface and producing a general  
relaxation, diverts the morbid action from  
parts essential to life to those which are  
not so important. I have seen this last rem-  
edy act like a charm, after the patient  
had remained in the bath up to the chin  
between four and five minutes a copious  
vomiting was produced, to the great relief  
and mitigation of all the symptoms.  
The bowels should be kept open by purg-  
atives, for this purpose calomel is decided-  
ly the best we are acquainted with. should  
it be slow in its operation we must aid  
it by injections. the discharges procured are

+ It is exhibited with more ease from the smallness  
of its bulk.

generally of a dark, greenish colour, very  
offensive to the smell, an action should  
be kept up on the bowels until the stools  
have acquired their natural colour, in giving  
this medicine a more lasting impression  
is made. Besides its property of procuring  
a larger quantity of foie and acrid mat-  
ter, than any other of the cathartics yet  
known to us, & if nothing more can be  
said in its behalf it is entitled to a  
preeminence. Blisters are deserving our  
highest consideration and if used at the  
proper time (that is to say) at the blistering  
point so happily expressed by some writers,  
they promise to do a great deal of good;  
but on the contrary if not regulated by  
judgment and discretion they are produ-  
ctive of much mischief. After taking blood  
from the arm according to the circumstances  
of the case and premising an emetic



also moving the bowels, if the force of the disease be not broken by the remedies already mentioned I would then order a large blister so as to embrace the whole throat and neck, can these do good from the discharge which follows their application or by making a counter impression and thereby destroying the concentration of the disease. The polygala lymga has been found very beneficial in croup, for the introduction of this article we are indebted to Doctor Archer of Maryland. This Saline is a good secondary remedy but to place our chief reliance on it would be to consign our patient to the grave. That its good effects have been experienced I do not pretend to deny. From its expectorant and diaphoretic properties much good may be derived and should be administered to extinguish the remains of this malady.

+ but also to allow the ingrip of air



Topical Bloodletting may be employed with advantage, we know that it is of the utmost importance to draw blood from parts as near the seat of inflammation as possible. With this view cupping and leeching claim our attention. Bronchotomy has been proposed by some physicians as the utimum remedium or dernior resort; this must be a cruel and painful operation, the object of which would be to <sup>not only</sup> remove and detach the preternatural membrane from the trachea, ~~but also to allow the air to enter the lungs~~ We have a number of instances of this substance being discharged and still death has ensued, not much benefit then could be expected from such an operation, the weight of authority appears to be decidedly against it. There is an old axiom in medicine that should never be entirely rejected



Unceps remedium potius est quam  
nullum. To prevent a recurrence  
of future attacks of croup, calomel  
purges should be given frequently,  
and at the same time avoiding  
all exposure to cold, damp, moist  
weather, should the system be  
left in a state of great exhaustion  
and debility, a cordial and nouris-  
hing diet will be necessary to  
restore the patient to his usual  
vigour and health. The antiphlogistic regimen  
should be strictly adhered to.

Jan 14th

the remainder of the year  
I found a number  
of the same kind of  
specimens to be found  
in the same place  
as the first specimen  
which I collected and  
which was the first  
one I brought home  
and which I brought  
home with me

63

Jacob Rose

Group 3

10.15 11th 7th Mrs Taylor

Jan 7. 28th

before Faculty

Jacob Rose

admitted March 24th 1820

